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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,680	WU ET AL.	
	Examiner	Art Unit	
	Joseph R. Pokrzywa	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26,31-33,35-44,47-49,55,56 and 58-60* is/are rejected.

7)☒ Claim(s) *27-30,34,45,46,50-54,57 and 61-64* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/519,839.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4 and 5*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/519,839, filed on 3/6/2000.

Information Disclosure Statement

2. The references listed in the Information Disclosure Statements submitted on 4/30/2001 and 8/13/2001 have been considered by the examiner (see attached PTO-1449's).

Drawings

3. The drawings received on 3/6/2001 are acceptable by the examiner.

Claim Objections

4. **Claim 39** is objected to because of the following informalities:

In ***claim 39***, line 2, "the first converter" should read "a first converter".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 3, 6, 7, 10, 20, 21, and 39** are rejected under 35 U.S.C. 102(b) as being anticipated by Feder (U.S. Patent Number 5,872,845, cited in the Information Disclosure Statement dated 8/13/2001).

Regarding ***claim 1***, Feder discloses a FAX-through data network apparatus (see Figs. 1 and 7) configured to transmit a FAX communication from a sender FAX machine to a receiver FAX machine without routing a signal through a PSTN (column 4, line 52 through column 5, line 6, being preferably a digital line such as a 64kbps ISDN line, see Fig. 7), comprising a receiver side LAN end station having a receiver IP address (server 150 or 750), a sender side LAN end station having a sender IP address (server 130 or 725, column 9, lines 14 through 32, and column 11, lines 1 through 49), a first converter (interface 720, seen in Fig. 7, being similar to interface 120) configured to receive the FAX communication from the sender FAX machine (fax machine 710) and convert the FAX communication to a network packet format to generate a FAX packet including a FAX-network ID for the receiver FAX machine (see Fig. 3, steps 340 and 350, column 6, lines 25 through 40, column 11, lines 4 through 27), a FAX-network server (central

server 745, seen in Fig. 7) configured to receive the FAX packet (column 11, lines 16 through 34), extract the FAX-network ID (column 11, lines 28 through 34), look up an IP address associated with the FAX-network ID in the mapping table (column 11, lines 34 through 40), and forward the FAX packet to the IP address found in the mapping table (column 11, lines 37 through 49), and a second converter (interface 760, seen in Fig. 7, being similar to interface 160) configured to intercept and identify the FAX packet, extract the FAX communication from the FAX packet, establish a communication link with the receiver FAX machine (fax machine 770) without routing a signal through the PSTN (column 4, line 52 through column 5, line 6), and transmit the FAX communication to the receiver FAX machine (column 6, lines 41 through 64).

Regarding ***claim 3***, Feder discloses the apparatus discussed in claim 1 above, and further teaches that the FAX-network ID has a format similar to a PSTN number (column 8, lines 46 through 50, and column 11, lines 31 through 40).

Regarding ***claim 6***, Feder discloses the apparatus discussed above in claim 1, and further teaches that the first converter (interface 720, seen in Fig. 7, being similar to interface 120) comprises a FAX transmit buffer configured to store the FAX communication received from the sender FAX via a FAX communication port (column 7, lines 44 through 67), wherein the FAX communication port establishes a communication with the sender FAX machine without routing a signal through the PSTN (column 4, line 52 through column 6, and column 7, lines 44 through 67), a FAX to network package unit configured to receive the FAX communication and convert the FAX communication to the network packet format to generate the FAX packet (column 6, lines 25 through 40, column 8, lines 18 through 67, and column 11, line 66 through column 12, line 3), a

transmit channel arbitrator configured to monitor a sender side end station transmit channel (column 7, lines 44 through 67), such that the FAX packet is transferred to the FAX-network server (central server 745, seen in Fig. 7) via a transmit channel of a LAN communication port (see Figs. 1, 2A, and 7, column 5, lines 2 through 6, and column 11, lines 25 through 34).

Regarding ***claim 7***, Feder discloses the apparatus discussed above in claim 6, and further teaches that the transmit channel arbitrator includes logic that directs the transfer the FAX packet when the transmit channel is idle (column 7, lines 10 through 18).

Regarding ***claim 10***, Feder discloses the apparatus discussed above in claim 6, and further teaches that the first converter (interface 720, seen in Fig. 7, being similar to interface 120) includes a mapping table (column 9, lines 14 through 32) containing at least one entry associating a FAX-network ID with an IP address (column 11, lines 11 through 15), the first converter configured to search the mapping table using the receiver FAX-network ID as a key and, if a matching IP address is found in the mapping table (column 8, lines 1 through 16, and column 9, lines 21 through 32), to insert the found IP address into the FAX packet and send the FAX packet to the second converter without routing it through the FAX-network server (see Fig. 1, column 9, lines 14 through 32).

Regarding ***claim 20***, Feder discloses the apparatus discussed above in claim 1, and further teaches that the FAX-through data network is further configured to transmit a FAX communication from the receiver FAX machine to the sender FAX machine (column 5, lines 27 through 34) without routing a signal through a PSTN (see Figs. 1 and 7, column 4, line 52 through column 5, line 6), further comprising a first converter (network interface apparatus 760) configured to receive the FAX communication from

the receiver FAX and convert the FAX communication to generate the FAX data packet including the predefined session port number and a sender FAX-network ID (see Fig. 3, steps 340 and 350, column 6, lines 25 through 40, column 11, lines 4 through 27), and a second converter (interface apparatus 720) configured to intercept and identify the FAX data packet, extract the FAX communication from the FAX data packet, establish communication with the sender FAX without routing a signal through the PSTN (column 4, line 52 through column 5, line 6) and forward the FAX communication to the sender FAX machine (column 6, lines 41 through 64).

Regarding ***claim 21***, Feder discloses the apparatus discussed above in claim 20, and further teaches that the first converter (interface 720, seen in Fig. 7, being similar to interface 120) comprises a FAX transmit buffer configured to store the FAX communication received from the sender/receiver FAX via a FAX communication port (column 7, lines 44 through 67), wherein the FAX communication port establishes a communication with the sender/receiver FAX machine without routing a signal through the PSTN (column 4, line 52 through column 6, and column 7, lines 44 through 67), a FAX to network package unit configured to receive the FAX communication and convert the FAX communication to the network packet format to generate the FAX data packet including predefined session port number in the FAX packet (column 8, lines 18 through 55) and the sender/receiver FAX-network ID (column 6, lines 25 through 40, column 8, lines 18 through 67, and column 11, line 66 through column 12, line 3), and a transmit channel arbitrator configured to monitor a sender/receiver side end station transmit channel (column 7, lines 44 through 67), and transfer the FAX-data packet to the FAX-

network server (central server 745, seen in Fig. 7) via a transmit channel of a network communication port (see Figs. 1, 2A, and 7, column 11, lines 25 through 34).

Regarding ***claim 39***, Feder discloses a computer readable medium containing instructions which, when executed by a computer, receive a FAX packet from a first converter (column 9, lines 46 through 60, and column 11, lines 16 through 27), the FAX packet associated with a FAX-network ID indicating a destination FAX machine (column 6, lines 41 through 64), the FAX packet further containing a FAX communication (column 11, lines 28 through 34), use the FAX network ID as a key to find an IP address in a mapping table (column 11, lines 31 through 40), the mapping table containing a FAX network ID associated with an IP address (column 11, lines 11 through 15 and 28 through 37), route the FAX packet to the IP address over a public computer network (column 11, lines 37 through 49).

7. **Claims 38, 40-44, 47-49, 55, 56, and 58-60** are rejected under 35 U.S.C. 102(e) as being anticipated by Yamakita (U.S. Patent Number 5,956,681, cited in the Information Disclosure Statement dated 8/13/2001).

Regarding ***claim 38***, Yamakita discloses a computer readable medium containing instructions (column 9, lines 47 through 67) which, when executed by a computer detect a receiver IP address (IP address of mobile terminal control host unit 104) of a receiver side LAN end station (column 4, lines 29 through 45), generate a notification packet including the receiver IP address (IP address of mobile terminal control host unit 104) and a receiver FAX-network ID (terminal identification code, column 4, lines 29 through 53, and column 6, line 64 through column 7, line 26), send the notification packet to a

FAX-network server (host unit 108, seen in Fig. 10, column 28, line 61 through column 29, line 21), establish a communication link between a first converter (host unit 104) and the sender FAX (mobile unit 101) without routing a signal through a PSTN (PHS network, being an ISDN, seen in Fig. 1, column 3, line 40 through column 4, line 24), receive the FAX communication from the sender FAX (mobile unit 101) at the first converter (host unit 104, column 4, lines 25 through 53), generate a FAX packet by converting the FAX communication to a network packet format including the receiver FAX-network ID (column 6, lines 19 through 43, and column 23, lines 31 through 64), and send the FAX packet to the FAX-network server (host unit 108, column 6, lines 29 through 43, and column 21, line 66 through column 22, line 15).

Regarding ***claim 40***, Yamakita discloses an appliance control apparatus (host unit 108) for asserting a control command to an appliance (host unit 108) from a remote network user (mobile terminal 101) using an appliance communication protocol (column 4, lines 29 through 53, and column 23, lines 31 through 53), with the apparatus (host unit 108) comprised of an appliance side LAN end station having an appliance IP address (destination IP address, column 4, lines 29 through 38), an appliance control packet generated by the remote network user (mobile terminal 101) and including an appliance network ID and the control command (column 4, lines 25 through 64, and column 24, lines 26 through 65), an appliance network server (host unit 108) configured to receive the appliance control packet (column 24, lines 26 through 65), extract the appliance network ID (terminal identification code, column 23, lines 16 through 48), lookup a corresponding destination IP address in a mapping table (see Fig. 10, column 28, line 61 through column 29, line 21), and forward the appliance control packet to the destination

IP address (column 4, lines 39 through 45), and an appliance converter (packet transmission/reception section 115) configured to intercept and identify the appliance control packet (column 4, lines 29 through 67), extract the control command and assert the control command to the appliance communication protocol (column 4, lines 46 through 53, and column 24, lines 26 through 56).

Regarding ***claim 41***, Yamakita discloses the apparatus discussed above in claim 40, and further teaches that the appliance control packet includes a predefined session port number (column 19, lines 51 through 63, and column 20, lines 37 through 44, and column 24, lines 26 through 34).

Regarding ***claim 42***, Yamakita discloses the apparatus discussed above in claim 40, and further teaches that the appliance control packet includes an appliance network type field (see Figs. 6A-7B, column 13, line 62 through column 14, line 43).

Regarding ***claim 43***, Yamakita discloses the apparatus discussed above in claim 40, and further teaches that the appliance network ID is organized in a format similar to a PSTN telephone number (column 19, lines 57 through 63).

Regarding ***claim 44***, Yamakita discloses the apparatus discussed above in claim 40, and further teaches that the appliance converter (packet transmission/reception section 115) is comprised of a receive channel filter configured to monitor a session port number and a source IP address of packets transmitted to the appliance side LAN end station in order to identify and intercept the appliance control packet (column 24, line 51 through column 25, line 6, and column 32, lines 57 through 65), such that the session port number matches the predefined session port number and the source IP address matches an IP address of the appliance network server (column 24, lines 26 through 34), an

appliance receive buffer configured to store the appliance control packet (column 31, lines 16 through 33), and a network format to appliance format unpack unit configured to extract the control command from the appliance control packet and forward the control command to the appliance machine via an appliance communication port, such that the appliance communication port establishes the appliance communication protocol with the appliance to assert the control command (column 24, line 66 through column 25, line 10, and column 39, lines 4 through 64).

Regarding ***claim 47***, Yamakita discloses the apparatus discussed above in claim 42, and further teaches that the transmit channel arbitrator is configured to transmit the notification packet once the transmit channel is idle (column 4, lines 6 through 28, and column 6, line 44 through column 7, line 13).

Regarding ***claim 48***, Yamakita discloses the apparatus discussed above in claim 42, and further teaches that the transmit channel arbitrator includes a latency control module that monitors the transmit buffer for priority status data and upon detecting priority status data in the buffer, preempts the transmit channel and makes the transmit channel available for high priority data transmission (column 14, line 44 through column 15, line 7, and column 17, lines 48 through 51).

Regarding ***claim 49***, Yamakita discloses the apparatus discussed above in claim 48, and further teaches that the transmit channel is reserved for the duration of the high priority data transmission (column 17, lines 48 through 51, being inherent in a emergency data transmission).

Regarding ***claim 55***, Yamakita discloses a method of asserting a control command to an appliance from a remote network user (mobile station 101) using an appliance

communication protocol (column 4, lines 29 through 53, and column 23, lines 31 through 53), the method comprising steps of detecting an appliance IP address (transmission source IP address, column 4, lines 29 through 38) of an appliance side LAN end station (mobile terminal control host unit 104), generating a notification packet including the appliance IP address and an appliance network ID (column 4, lines 25 through 64), sending the notification packet to an appliance network server (column 4, lines 29 through 53, and column 6, line 64 through column 7, line 26), receiving the notification packet at the appliance network server (host unit 108), wherein the appliance network server (host unit 108) includes a mapping table between a destination network ID and a destination IP address (see Fig. 10, column 28, line 61 through column 29, line 21), generating an appliance control packet including the appliance network ID and the control command, sending the appliance control packet to the appliance network server, transmitting the appliance packet to the destination IP address looked-up in the mapping table of the appliance network server with the appliance network ID as a key (column 4, line 65 through 67, column 20, lines 54 through 65, and column 28, line 61 through column 29, line 57), intercepting the appliance packet at an appliance converter (packet transmission/reception section 115), extracting the control command from the appliance packet (column 4, lines 29 through 67), establishing a communication link with the appliance (mobile terminal 101) without routing a signal through the PSTN (PHS network, being an ISDN, seen in Fig. 1, column 3, line 40 through column 4, line 24), and asserting the control command to the appliance using the appliance communication protocol (column 4, lines 29 through 64).

Regarding ***claim 56***, Yamakita discloses the method discussed above in claim 55,

and further teaches that the detecting step further includes steps of intercepting a network packet transmitted by the appliance side LAN end station (column 4, lines 25 through 45), determining a source IP address in a header of the network packet (column 25, line 49 through column 26, line 5), and using the source IP address as the appliance IP address (column 26, lines 6 through 32).

Regarding ***claim 58***, Yamakita discloses the method discussed above in claim 55, and further teaches that the receiving the notification packet step further includes steps of receiving a network packet (column 4, lines 39 through 53), determining whether the network packet is a notification packet based on an identification field in the network packet (column 24, lines 22 through 56), extracting a source IP address and a source appliance ID from the notification packet (column 4, line 46 through 53), creating a new entry in the mapping table including the source appliance ID and the source IP address (column 28, line 61 through column 29, line 17, column 31, lines 5 through 35), and repeating these steps for each appliance converter added to an appliance control appliance (see Figs. 9A-9C).

Regarding ***claim 59***, Yamakita discloses the method discussed above in claim 55, and further teaches that the transmitting the appliance packet step further includes steps of receiving the appliance packet at the appliance network server (column 4, lines 29 through 45), extracting a appliance network IP from the appliance packet (column 4, line 46 through 53), looking-up a destination appliance IP address in the mapping table with the appliance network ID as a key (column 28, line 61 through column 29, line 17, column 31, lines 5 through 35), repackaging the appliance packet with an appliance network server IP address as the source address of the appliance packet and the

destination appliance IP address as the destination IP address of the appliance packet (column 29, lines 31 through 47), and transmitting the appliance packet to the destination appliance IP address (column 4, lines 54 through 67, and column 29, lines 43 through 57).

Regarding ***claim 60***, Yamakita discloses the method discussed above in claim 55, and further teaches that the intercepting step further includes steps of receiving a network packet transmitted to the appliance side LAN end station (column 4, lines 29 through 53, and column 27, line 58 through column 28, line 8), analyzing a source address of the network packet (column 27, line 58 through column 28, line 27), when the source address matches the appliance server IP address, storing the network packet in an appliance receive buffer (column 28, line 61 through 13, and column 31, lines 5 through 23), and when the source address doesn't match the appliance server IP address, sending the network packet to the appliance side LAN end station (column 29, lines 14 through 57).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claims 2, 4, 5, 8, 9, 11-19, 22-26, 31-33, and 35-37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Feder (U.S. Patent Number 5,872,845, cited in the Information Disclosure Statement dated 8/13/2001) in view of Yamakita (U.S. Patent Number 5,956,681, cited in the Information Disclosure Statement dated 8/13/2001).

Regarding ***claim 2***, Feder discloses the apparatus discussed above in claim 1, but fails to expressly disclose if the FAX packet includes a FAX network type field that identifies the FAX packet as either a FAX data packet or a FAX notification packet.

Yamakita discloses a FAX-through data network system that comprises a FAX packet includes a FAX network type field that identifies the FAX packet as either a FAX data packet or a FAX notification packet (column 16, line 13 through column 17, line 4, and column 25, line 64 through column 26, line 5).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 2.

Regarding ***claim 4***, Feder and Yamakita disclose the apparatus discussed above in claim 2, and Feder teaches that the FAX data packet contains data representing the FAX communication (column 9, lines 14 through 32, and column 11, lines 1 through 49).

Regarding ***claim 5***, Feder and Yamakita disclose the apparatus discussed above in claim 2, and Yamakita further teaches that the notification packet contains the FAX-network ID and an IP address associated with the FAX-network ID (column 4, lines 29 through 53).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 5.

Regarding ***claim 8***, Feder discloses the apparatus discussed above in claim 6, but fails to expressly disclose if the transmit channel arbitrator includes a latency control module that monitors the transmit buffer for priority status data.

Yamakita discloses a system having a transmit channel arbitrator (communication control section 116) configured to monitor a sender side end station transmit channel, such that the FAX packet is transferred to a FAX-network server (host unit 108) via a transmit channel of a network communication port (see Fig. 1, and column 4, lines 29 through 64). Yamakita further teaches that the transmit channel arbitrator includes a latency control module that monitors the transmit buffer for priority status data, and upon detecting priority status data in the transmit buffer, preempts the transmit channel and makes the transmit channel available for high priority transmission (column 14, line 44 through column 15, line 7, and column 17, lines 48 through 51).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 8.

Regarding ***claim 9***, Feder discloses the apparatus discussed above in claim 6, but fails to expressly disclose if the transmit channel is reserved for the duration of the high priority data transmission.

Yamakita discloses a system having a transmit channel arbitrator (communication control section 116) configured to monitor a sender side end station transmit channel, such that the FAX packet is transferred to a FAX-network server (host unit 108) via a transmit channel of a network communication port (see Fig. 1, and column 4, lines 29 through 64). Yamakita further teaches that the transmit channel is reserved for the duration of the high priority data transmission (column 14, line 44 through column 15, line 7, column 17, lines 48 through 51, being inherent in a emergency data transmission).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 9.

Regarding ***claim 11***, Feder discloses the apparatus discussed above in claim 6, and further teaches that the sender FAX machine (facsimile 110 or 710, seen in Figs. 1 and 7) also receives FAX communications (column 5, lines 27 through 34), such that the first converter (interface 720, seen in Fig. 7, being similar to interface 120) is further comprised of a source IP extractor configured to detect the sender IP address by monitoring packets transmitted by the sender side network end station (column 6, lines 41 through 62), wherein the transmit channel arbitrator is further configured to monitor the sender side end station transmit channel (column 7, lines 24 through 54), and transmit the FAX packet to the FAX-network server via the transmit channel of the network communication port (column 8, lines 17 through 67), a receive channel filter configured to monitor packets transmitted to the sender side network end station in order to identify and intercept the FAX packet (column 6, lines 41 through column 7, line 9), a FAX receive buffer configured to store the FAX packet (column 6, line 65 through column 7, line 9), and a network format to FAX format unpack unit configured to extract the FAX communication from the FAX packet and forward the FAX communication to the sender FAX machine via the FAX communication port (column 11, line 60 through column 12, line 10, see Figs. 4, 8D, and 8E), such that the FAX communication port establishes a communication with the sender FAX machine without routing a signal through the PSTN

(see Figs. 4, 7, 8D, and 8E).

However, Feder fails to expressly disclose of teaching if the source IP extractor is configured to detect the sender IP address by monitoring packets transmitted by the sender side network end station *to generate a notification packet including a FAX network packet type field, the sender FAX-network ID and the sender IP address.*

Yamakita discloses a system wherein a sender FAX machine (mobile unit 101) also receives FAX communications (column 4, lines 1 through 67), such that the first converter (host unit 108) is further comprised of a source IP extractor configured to detect the sender IP address by monitoring packets transmitted by the sender side network end station to generate a notification packet including a FAX network packet type field, the sender FAX-network ID and the sender IP address (column 4, lines 46 through 60).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 11.

Regarding ***claim 12***, Feder and Yamakita disclose the apparatus discussed above in claim 11, and Yamakita further teaches that the FAX-network server (host unit 108) is

comprised of an input filter configured to receive a network packet and identify a notification packet and a FAX data packet based on the network packet type field (column 4, lines 29 through 64), a first extractor configured to determine the destination FAX-network ID from the FAX packet (column 24, lines 26 through 56), a FAX-network server mapping table containing at least one entry associating a FAX-network ID with an IP address (column 28, line 61 through column 29, line 13), a search engine configured to determine the destination FAX IP address from the FAX-network mapping table using the destination FAX-network ID as a key (column 31, lines 8 through 23), and a packet modifier configured to replace a destination IP address of the FAX packet with the destination FAX IP address and a source IP address of the FAX packet with a FAX-network server IP address (column 24, line 66 through column 25, line 6).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 12.

Regarding ***claim 13***, Feder and Yamakita disclose the apparatus discussed above in claim 12, and Yamakita further teaches of a second extractor configured to determine a FAX-network ID and an IP address contained in the notification packet to create a new

entry in the FAX-network server mapping table (column 28, line 61 through column 29, line 13, and column 31, lines 5 through 33).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 13.

Regarding ***claim 14***, Feder and Yamakita disclose the apparatus discussed above in claim 12, and Feder further teaches that the FAX-network server is local to the sender side LAN end station (column 9, lines 14 through 32).

Regarding ***claim 15***, Feder and Yamakita disclose the apparatus discussed above in claim 14, and Feder further teaches of a remotely located FAX-network server (central server 745, seen in Fig. 7), the remotely located FAX-network server in communication with the local FAX-network server via a public computer network (Internet 740), the remotely located FAX-network server including a mapping table containing at least one FAX-network ID and an IP address associated with the FAX-network ID (column 11, lines 1 through 49), such that the local FAX-network server can query the remotely located FAX-network server using a FAX-network ID as key and the remotely located FAX-network server can return an IP address associated with the FAX-network ID used

as a key (column 11, lines 28 through 40).

Regarding ***claim 16***, Feder and Yamakita disclose the apparatus discussed above in claim 15, and Feder further teaches that the additional levels of FAX-network servers containing mapping tables are in communication with the local FAX-network server and the remotely located FAX-network server to provide query/resolution of FAX-network ID and associated IP address information (column 11, lines 31 through 40).

Regarding ***claim 17***, Feder and Yamakita disclose the apparatus discussed above in claim 15, and Feder further teaches that the mapping table update information providing FAX-network ID and associated IP address information is shared between the local FAX-network server and the remotely located FAX-network server (column 9, lines 14 through 32, and column 11, lines 9 through 49).

Regarding ***claim 18***, Feder discloses the apparatus discussed above in claim 1, and further teaches that the second converter (interface 160 or 760) is comprised of a source IP extractor configured to detect and learn the receiver IP address by monitoring packets transmitted by the receiver side LAN end station to generate a packet including the receiver FAX-network ID and the receiver IP address (column 6, lines 41 through 62), a transmit channel arbitrator configured to monitor a receiver side end station transmit channel (column 7, lines 24 through 54), and transfer the notification packet to the FAX-network server via a transmit channel and transfer the packet to the FAX-network server via a transmit channel of a LAN communication port (column 8, lines 17 through 67), a receive channel filter configured to monitor packets transmitted to the receiver side LAN end station in order to identify and intercept the FAX packet (column 6, lines 41 through column 7, line 9), a FAX receive buffer configured to store the FAX

packet (column 6, line 65 through column 7, line 9), and a network format to FAX format unpack unit configured to extract the FAX communication from the FAX packet (column 6, line 65 through column 7, line 9) and forward the FAX communication to the receiver FAX machine via a FAX communication port (column 11, line 60 through column 12, line 10, see Figs. 4, 8D, and 8E), such that the FAX communication port establishes the communication with the receiver FAX machine without routing a signal through the PSTN (see Figs. 4, 7, 8D, and 8E).

However, Feder does not expressly disclose if the source IP extractor is configured to detect and learn the receiver IP address by monitoring packets transmitted by the receiver side network end station to generate a notification packet including the receiver FAX-network ID and the receiver IP address, with the notification packet being communicated to the network for automatically and autonomously constructing the mapping table.

Yamakita discloses a system wherein a converter (host unit 108) is further comprised of a source IP extractor configured to detect the sender IP address by monitoring packets transmitted by a receiver side network end station to generate a notification packet including a FAX network packet type field, the sender FAX-network ID and the sender IP address (column 4, lines 46 through 60), with the notification packet being communicated to the network for automatically and autonomously constructing the mapping table (column 28, line 61 through column 29, line 10, and column 31, lines 8 through 33).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 18.

Regarding ***claim 19***, Feder and Yamakita disclose the apparatus discussed above in claim 18, and Feder further teaches that the receiver FAX machine (facsimile 170 or 770) also transmits FAX communications (column 5, lines 26 through 34), such that the second converter (interface 160 or 760) is further comprised of a FAX transmit buffer configured to store the FAX communication received from the receiver FAX via a FAX communication port (column 7, lines 44 through 67), wherein the FAX communication port establishes a communication with the receiver FAX machine without routing a signal through the PSTN (column 4, line 52 through column 6, and column 7, lines 44 through 67), a FAX to network package unit configured to receive the FAX communication and convert the FAX communication to generate the FAX data packet including the destination FAX-network ID (column 6, lines 25 through 40, column 8, lines 18 through 67, and column 11, line 66 through column 12, line 3), wherein the transmit channel arbitrator is further configured to monitor a receiver side end station transmit channel (column 7, lines 44 through 67), and transfer the notification packet/FAX packet to the FAX-network server (central server 745, seen in Fig. 7) via the transmit channel of the LAN communication port (see Figs. 1, 2A, and 7, column 11, lines 25 through 34).

However, Feder fails to expressly disclose of a startup switch configured to receive the notification packet and the FAX data packet, such that once the notification packet is transferred to an output of the startup switch, the FAX data packet is transferred to the output thereafter.

Yamakita further teaches of a startup switch (packet transmission/reception section 115) configured to receive the notification packet and the FAX data packet (column 4, lines 29 through 45), such that once the notification packet is transferred to an output of the startup switch, the FAX data packet is transferred to the output thereafter (column 4, lines 46 through 64).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 19.

Regarding ***claim 22***, Feder discloses the system discussed above in claim 21, and further teaches that the second converter (interface 160 or 760) is comprised of a source IP extractor configured to detect and learn the sender/receiver IP address by monitoring packets transmitted to the sender/receiver side network end station to generate a packet including the sender/receiver FAX-network ID and the sender/receiver IP address

(column 6, lines 41 through 62), a transmit channel arbitrator configured to monitor a sender/receiver side end station transmit channel (column 7, lines 24 through 54), and transfer the packet to the FAX-network server via a transmit channel and transfer the packet to the FAX-network server via a transmit channel of a network communication port (column 8, lines 17 through 67), a receive channel filter configured to monitor packets transmitted to the sender/receiver side network end station in order to identify and intercept the FAX packet (column 6, lines 41 through column 7, line 9), a FAX receive buffer configured to store the FAX packet (column 6, line 65 through column 7, line 9), and a network format to FAX format unpack unit configured to extract the FAX communication from the FAX packet (column 6, line 65 through column 7, line 9) and forward the FAX communication to the sender/receiver FAX machine via a FAX communication port (column 11, line 60 through column 12, line 10, see Figs. 4, 8D, and 8E), such that the FAX communication port establishes the communication with the receiver FAX machine without routing a signal through the PSTN (see Figs. 4, 7, 8D, and 8E).

However, Feder does not expressly disclose if the source IP extractor is configured to detect and learn the receiver IP address by monitoring packets transmitted by the receiver side network end station to generate a notification packet including the receiver FAX-network ID and the receiver IP address, with the notification packet being communicated to the network for automatically and autonomously constructing the mapping table.

Yamakita discloses a system wherein a converter (host unit 108) is further comprised of a source IP extractor configured to detect the sender IP address by

monitoring packets transmitted by a receiver side network end station to generate a notification packet including a FAX network packet type field, the sender FAX-network ID and the sender IP address (column 4, lines 46 through 60), with the notification packet being communicated to the network for automatically and autonomously constructing the mapping table (column 28, line 61 through column 29, line 10, and column 31, lines 8 through 33).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 22.

Regarding ***claim 23***, Feder discloses a method of transmitting a FAX communication from a sender FAX (facsimile 110) to a receiver FAX (facsimile 170) without routing a signal through a PSTN (column 4, line 52 through column 5, line 6, see Fig. 7), with the method comprising steps of detecting a receiver FAX-network ID of a receiver side LAN end station (column 11, lines 16 through 10), generating a notification packet including the receiver FAX-network ID (column 11, lines 16 through 30), sending the notification packet to a FAX-network server (central server 745, column 11, lines 28 through 49), receiving the notification packet at the FAX-network server (column 11,

lines 28 through 49), wherein the FAX-network server (server 745, seen in Fig. 7) includes a mapping table between a destination FAX-network ID and a destination IP address (column 11, lines 11 through 40), establishing a communication link between a first converter and the sender FAX (column 9, lines 14 through 32, and column 11, lines 1 through 49) without routing a signal through a PSTN (column 4, line 52 through column 5, line 6, being preferably a digital line such as a 64kbps ISDN line, see Fig. 7), receiving the FAX communication from the sender FAX at the first converter (interface 720, seen in Fig. 7, being similar to interface 120), generating a FAX packet by converting the FAX communication to a network packet format including the receiver FAX-network ID (see Fig. 3, steps 340 and 350, column 6, lines 25 through 40, column 11, lines 4 through 34), sending the FAX packet to the FAX-network server (central server 745, seen in Fig. 7), transmitting the FAX packet to the destination IP address looked-up in the mapping table of the FAX-network server (column 11, lines 34 through 40) with the receiver FAX-network ID as a key (column 11, lines 37 through 49), intercepting the FAX packet at a second converter (interface 760, seen in Fig. 7, being similar to interface 160), extracting the FAX communication from the FAX packet, establishing a communication link with the receiver FAX machine (fax machine 770) without routing a signal through a PSTN (see Fig. 7, column 4, line 52 through column 5, line 6), and transmitting the FAX communication to the receiver FAX (column 6, lines 41 through 64).

However, Feder fails to expressly disclose of detecting a receiver IP address of a receiver side LAN end station and generating a notification packet including the receiver *IP* address and a receiver FAX-network ID.

Yamakita discloses a method of transmitting a FAX communication from a sender FAX to a receiver FAX without routing a signal through a PSTN, with the method comprising steps of detecting a receiver IP address of a receiver side LAN end station (column 24, lines 8 through 53), generating a notification packet including the receiver IP address and a receiver FAX-network ID (column 4, lines 29 through 53, and column 24, lines 26 through 67), sending the notification packet to a FAX-network server (host unit 108, column 4, lines 39 through 53), receiving the notification packet at the FAX-network server (column 4, lines 39 through 64), wherein the FAX-network server (host unit 108) includes a mapping table between a destination FAX-network ID and a destination IP address (see Fig. 10, column 28, line 61 through column 29, line 10).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 23.

Regarding ***claim 24***, Feder and Yamakita disclose the method discussed above in claim 23, and Yamakita further teaches that the step of generating includes inserting a predefined session port number into the notification packet that indicates the origin of the fax communication (column 24, lines 26 through 65).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 24.

Regarding ***claim 25***, Feder and Yamakita disclose the method discussed above in claim 24, and Yamakita further teaches that the step of generating includes inserting a FAX network type field into the notification packet, wherein the FAX network type field identifies the FAX packet as either a FAX data packet or a FAX notification packet (column 16, line 13 through column 17, line 4, and column 25, line 64 through column 26, line 5).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the

teachings of Yamakita to obtain the invention as specified in claim 25.

Regarding ***claim 26***, Feder and Yamakita disclose the method discussed above in claim 23, and Yamakita further teaches that the detecting step further includes intercepting a network packet transmitted by the receiver side LAN end station (column 4, lines 29 through 53), determining a source IP address in a header of the network packet (column 24, lines 15 through 56), and using the source IP address as the receiver IP address (column 24, line 57 through column 25, line 10).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 26.

Regarding ***claim 31***, Feder and Yamakita disclose the method discussed above in claim 23, and Yamakita further teaches of detecting a sender IP address of a sender side LAN end station (column 4, lines 29 through 64), generating a notification packet including the predefined session port number in a header of the notification packet, the sender IP address and a sender FAX-network ID (column 4, lines 29 through 64, and column 24, line 57 through column 25, line 10), and sending the notification packet to the FAX-network server, wherein a new entry in the mapping table is created containing the

sender FAX-network ID and the sender IP address (see Fig. 10), such that a fax communication can be transmitted to the sender FAX (column 28, line 61 through column 29, line 17).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 31.

Regarding ***claim 32***, Feder and Yamakita disclose the method discussed above in claim 23, and Yamakita further teaches that the receiving the notification packet step further includes steps of receiving a network packet (column 4, lines 39 through 53), determining whether the network packet is a notification packet based on an identification field in the network packet (column 24, lines 22 through 56), extracting a source IP address and a source FAX-network ID from the notification packet (column 4, line 46 through 53), creating a new entry in the mapping table including the source FAX-network ID and the source IP address (column 28, line 61 through column 29, line 17, column 31, lines 5 through 35), and repeating these steps for each sender/receiver FAX added to a FAX through data network (see Figs. 9A-9C).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 32.

Regarding ***claim 33***, Feder and Yamakita disclose the method discussed above in claim 23, and Feder further teaches that the step of establishing a communication link between a first converter and the sender FAX further includes steps of monitoring an on/off hook of the sender FAX machine (column 7, lines 30 through 43), generating a dial tone to the sender FAX machine (column 7, lines 37 through 44), establishing a communication channel between the sender FAX machine and a PBX emulation device (column 7, lines 24 through 54), establishing a FAX communication protocol with the sender FAX machine (see Figs. 1, 4, and 8A), registering a destination FAX telephone number to determine whether the destination FAX phone number is a FAX-network ID (column 7, lines 45 through 54, and column 9, lines 14 through 32), when the destination FAX phone number is a FAX-network ID, storing the FAX communication to a FAX transmit buffer (column 7, lines 55 through 67), when the destination FAX phone number is a FAX phone number, routing the FAX communication to the destination FAX machine via the PSTN (see Fig. 8B), and disconnecting the line when the sender FAX

machine is on hook (column 2, lines 5 through 7, and column46 through 54).

Regarding ***claim 35***, Feder and Yamakita disclose the method discussed above in claim 23, and Yamakita further teaches that the transmitting the FAX packet step further includes steps of receiving the FAX packet at the FAX-network server (column 4, lines 29 through 45), extracting a FAX-network ID from the FAX packet (column 4, line 46 through 53), looking-up a destination FAX IP address in the mapping table with the appliance FAX-network ID as a key (column 28, line 61 through column 29, line 17, column 31, lines 5 through 35), repackaging the FAX packet with a FAX-network server IP address as the source address of the FAX packet and the destination FAX IP address as the destination IP address of the FAX packet (column 29, lines 31 through 47), and transmitting the FAX packet to the destination FAX IP address (column 4, lines 54 through 67, and column 29, lines 43 through 57).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 35.

Regarding ***claim 36***, Feder and Yamakita disclose the method discussed above in claim 23, and Yamakita further teaches that the intercepting step further includes steps of

receiving a network packet transmitted to the receiver side LAN end station (column 4, lines 29 through 53, and column 27, line 58 through column 28, line 8), analyzing a session port number and a source address of the network packet (column 27, line 58 through column 28, line 27), when the source address matches a FAX-network server IP address, storing the network packet in a FAX receive buffer (column 28, line 61 through 13, and column 31, lines 5 through 23), and when the source address doesn't match the FAX-network server IP address, sending the network packet to the receiver side LAN end station (column 29, lines 14 through 57).

Feder & Yamakita are combinable because they are from the same field of endeavor, being systems that transmit facsimile data through the Internet.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Yamakita's teachings in Feder's system.

The suggestion/motivation for doing so would have been that Feder's system would conform to known standards throughout the art of Internet packet data, as recognized by Yamakita in column 1, line 38 through column 2, line 50.

Therefore, it would have been obvious to combine Feder's system with the teachings of Yamakita to obtain the invention as specified in claim 36.

Regarding ***claim 37***, Feder and Yamakita disclose the method discussed above in claim 23, and Feder further teaches that the step of establishing a communication link with the receiver FAX further includes steps of generating a ring/answer request to the receiver FAX machine with a PBX emulation device (column 9, lines 42 through 52), establishing a communication channel between the receiver FAX and the PBX emulation device (column 9, line 42 through column 10, line 3), establishing a FAX communication

protocol with the receiver FAX (column 9, line 53 through column 10, line 25), and retrieving the FAX communication from a FAX receive buffer (column 9, line 53 through column 10, line 3).

Allowable Subject Matter

10. **Claims 27-30, 34, 45, 46, 50-54, 57, and 61-64** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

With respect to ***claims 27, 34, and 57***, the prior art does not teach or fairly suggest of monitoring a network end station transmit channel, asserting a pause control to the network end station, transmitting the notification packet to the fax-network server via the network transmit channel, de-asserting the pause control to the network end station, and arbitrating the network transmit channel.

With respect to ***claims 45 and 53***, the prior art does not teach or fairly suggest of detecting the appliance IP address by intercepting a packet transmitted by the appliance side network end station to generate a notification packet including the appliance network ID and the appliance IP address, receiving the status report and converting the status report to the network packet format to generate a status report packet with a user network ID of the remote network user, a startup switch configured to receive the notification packet and the status report packet, such that once the notification packet is transferred to an output of the startup switch, the startup status report packet is transferred to the output

thereafter, and transferring the notification packet/status report packet to the appliance network server via the transmit channel of the network communication port.

With respect to ***claims 50, 54, and 62***, the prior art does not teach or fairly suggest of an input filter configured to receive a network packet and identify notification packets, status report packets and appliance control packets based on an identification field of the network packet, a first extractor configured to determine a network ID and an IP address contained in the notification packet to create a new entry in the mapping table, a second extractor configured to determine a destination network ID from the appliance control packet, a search engine configured to determine a destination IP address from the look-up table using the destination network ID as a key, and a packet modifier configured to replace a destination IP address in a header of the status report/appliance control packet with the destination IP address and a source IP address in the header with an IP address of the application network server.

With respect to ***claim 51***, the prior art does not teach or fairly suggest of a plurality of appliance converters arranged in a daisy chain configuration between a network and the appliance side network end station, wherein a first converter is directly connected to the appliance side network end station and a last converter is directly connected to the network, with the interception and identification of the appliance control packet begins with the last converter and continues for each of the plurality of appliance converters until the first converter is reached.

With respect to ***claim 52***, the prior art does not teach or fairly suggest of the destination network ID comprising digits arranged in an order from more significant digits, where the lesser significant digits represent individual devices on the daisy chain.

With respect to ***claim 61***, the prior art does not teach or fairly suggest of receiving a network packet, analyzing a source address of the network packet, analyzing a destination network ID of the network packet when the source address matches the server IP address, storing the network packet when the destination network ID matches a network ID of a converter, otherwise, sending the network packet to a previous stage appliance converter in a daisy chain configuration, and repeating these steps until the network packet is stored.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrp